**IN THE SPECIFICATION:**

Page 9, amend the paragraph beginning on line 29 as follows:

As the particle flow fluidized by the carrier gas is continuously circulated via the chamber 21, the direction of the particle flow is affected by the velocity vector of the circulation and, hence, the direction of the particle path is incident on the web in the reverse direction to the travel of the web 11 as indicated by arrow 8 in the diagram. When the particles hit the surface of the web 11, they are brought to a close distance from each other and the fibers of the web, whereby they become attached to the fibers and each other due to van der Waals and other forces, thus forming a tight and uniform layer of coating. Furthermore, the particle flow which is blasted obliquely against the travel of the web surface accumulates calcium carbonate particles in the depressed points of the web surface, whereby the profile of the coated surface becomes smoother. The adhering capability of the particles can be further improved by treating the web 11 with water or chemicals sprayed 9 thereon prior to its entry in the ion-blast chamber. As known, water establishes hydrogen bonds between the fibers of the paper web and also improves the bonding of the calcium carbonate particles to the fibers and to each other. The coated web 11 may be further treated by a binding agent, water or chemicals sprayed from nozzles 10 located after the ion-blast chamber 21. It must be noted that the amount of water used in the method according to the invention is very minimal as compared with methods based on applying the coating as an aqueous suspension to the web. Hence, the need for high-capacity dryers is eliminated.

Page 12, amend the paragraph beginning on line 1 as follows:

In Fig. 6 is shown a method and apparatus for forming a carbonate coating layer directly from precursors on the surface of the web 11. In this method, the ion-blast chamber 21 with its coating particle circulation and the structure of the conducting support belt are similar to those of the above-described apparatuses. The difference herein is that the particle circulation in the present case is fed with slaked slime particles CaO that are transferred to the web surface by ion-blasting. Next, the web is passed into an enclosure 24 where water is applied to the web, e.g., under a steam or mist atmosphere. Alternatively, the water may be introduced as mist or steam in

the ion-blast chamber 21 or using any other suitable technique. When the slaked lime CaO reacts with the applied water, calcium hydroxide $Ca(OH)_2$ is formed. Next, the web 11 is passed into a chamber **25** enclosing a carbon dioxide atmosphere partially or purely comprised of carbon dioxide, whereby the calcium hydroxide $Ca(OH)_2$ reacts with the carbon dioxide so as to form calcium carbonate particles on the web surface. The water released in the reaction is discharged from the chamber. When desired, the adherence of the formed particles to the web surface may be secured by ion-blasting, whereby also a blast of carbon dioxide gas can be directed to the web surface.